dency to return to vegetable colouring-matters, and that large quantities of maqui berries are being imported into Europe from Chili for the purpose of colouring wines. In the three years ending 1887 the exports of this substance were respectively 26,592, 136,026, and 431,392 kilos, by far the largest proportion finding its way to France.

The little book before us has no pretensions to be regarded as a complete treatise on the analysis of wines. Its aim is to furnish the analyst with a number of carefully tested methods for the detection of sophistications and adulterations, and for the rapid determination of those constituents on which the character of wine mainly depends. Dr. Magnier de la Source is well known in France as an authority on the subject, and the *Bulletin* of the French Chemical Society contains papers by him relating to the analysis of wine. His methods are, for the most part, similar to those adopted by the Association of German and Austrian analysts, although they are not described with that minute attention to detail which has been found desirable by the German-speaking chemists. As may be seen on turning over the pages of Fresenius's *Zeitschrift für analytische Chemie*, the "musts" and wines of Germany are periodically examined and reported upon with all the method and regularity adopted in the case of the London water-supply; and it has happened in the past that the modes of determining such constituents as the vegetable acids, glycerin, and "extractive matters" have been discussed and wrangled over in a manner which recalls the famous fights over "organic carbon," "albuminoid ammonia," and "previous sewage contamination" of years ago. The only fault that we have to find with this book is that its author hardly does justice to his German brethren; although, it is but fair to add, some reference to their work is to be found in the excellent bibliography at the end of the volume. T. E. T.

MODERN THERAPEUTICS.

An Introduction to Modern Therapeutics. By T. Lauder Brunton, M.D., &c. (London: Macmillan and Co., 1892.)

THIS work is a reprint of the Croonian Lectures delivered before the Royal College of Physicians, London, in 1889. Whatever Dr. Brunton writes is sure to be interesting, and the present lectures have lost none of their lucidity or freshness though three years have elapsed since they were before the medical profession. It is hardly necessary to say that the subject is one with which Dr. Lauder Brunton is eminently fitted to deal, and the non-medical reader will be convinced when he has read the volume that medicine and therapeutics are far from being the inexact sciences they were not many years ago. The elementary nature of some of the early pages will be understood when it is remembered that the audience before which the lectures were originally given consisted in a large measure of men who had learnt chemistry before the days of Crookes, Lockyer, and Mendeleeff. It was necessary that the author should lead them through a brief survey of the chief facts and theories relating to atoms and molecules until the more difficult subject of the composition, constitution, and methods of union of organic radicles is reached. This is done in an admirably clear summary, assisted by those apt illustrations drawn from every-day life for which Dr. Brunton is so well-known. Our new drugs are now made by the chemist; so great has been the advance of organic chemistry, that the pharmacologist has hard work to keep pace with all the new combinations that issue from the laboratory. But the two classes of investigators, the chemists and the experimental therapeutists, have at least gone hand in hand so far, that it is now possible to judge the action of a drug by its composition. This, however, as Dr. Brunton points out, is not a rule without exception. There are many drugs which behave in unexpected ways; they no doubt, in the future, will be brought into harmony with laws of nature yet to be discovered. At present it is not possible to prophesy the physiological action of a chemical compound with that mathematical accuracy which enables astronomers to foretell eclipses; pharmacology is yet, and perhaps always will be, an experimental science.

The lectures stand practically in the same condition as that in which they were delivered. A volume of equal size to that under consideration would have been necessary to include all the new work that has appeared in the last few years. The tuberculin of Koch; the importance of poisonous proteids, and the diminishing popularity of the ptomaines; the action of the intestinal epithelium (*vice* the liver) as the gatekeeper protecting the body from the entrance of albumose; the application of phagocytosis to the problems of disease, together with the views of the antiphagocytists—these are a few of the big questions that have come to the fore in the last three years, and it is only active pathologists who would be able to realize how much longer these lectures would have been if full reference had been made to all of them. The main facts, and the principal conclusions adduced by Dr. Brunton, will, however, still remain; and all those who read the lectures in the medical journals before will welcome their appearance in a more permanent form now, and to those who missed them in 1889 we can confidently recommend the book as one which will not only be interesting but also useful. W. D. H.

OUR BOOK SHELF.

Elementary Hydrostatics. By W. H. Besant, Sc.D., F.R.S. "Cambridge Mathematical Series." (Cambridge: Deighton, Bell, and Co., 1892.)

THE success this work has achieved will be gathered from the fact that this is the fifteenth edition, so that any further criticism on our part would be quite unnecessary. The brief snatches of historical matter, together with the lucid and simple explanations, all tend to stir up in the student an amount of interest which in the reading of many other works on this subject lies dormant. By a careful study of the illustrations, especially those relating to pumps, presses, &c., the beginner may gather much knowledge about the principles on which they are based. In this edition the text has undergone a careful revision, several alterations and additions having been made. A uniform system of units has been maintained throughout, and the chapters on the motions of fluids and on sound, which in previous editions were inserted among those on the equilibrium of fluids, have here been separated. The examples and problems at the termination of each chapter are as numerous as ever, a new edition of

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their solutions being near completion. Both at the Universities and elsewhere, the work will still continue to occupy the high position which it has held among treatises of its kind.
W.

The Threshold of Science. By C. R. Alder Wright, F.R.S. Second Edition, Revised and Enlarged. (London: Charles Griffin and Co., 1892.)

THE primary aim of this book is to interest young readers in various simple and amusing experiments, illustrating some of the chief physical and chemical properties of surrounding objects, and the effects upon them of light and heat. In the present edition the author has made no change which is likely to interfere with this object, but he has added various scientific appendices, and an excellent chapter on the systematic order in which class experiments should be carried out for educational purposes. These additions will be of great service to all who may wish to use the volume not merely as a "play-book," but as an instrument for the training of the mental faculties. Any one who may still have doubts regarding the value of elementary science as an organ of education, will speedily have his doubts dispelled if he takes the trouble to understand the methods recommended by Dr. Alder Wright. The majority of the experiments he has selected must not, of course, be studied merely in his exposition. It is intended that each reader shall make them himself. If that is done, they cannot fail to quicken the intelligence even of "the average boy."

Key to J. B. Lock's Elementary Dynamics. By G. H. Lock, M.A. (London: Macmillan and Co., 1892.)

THIS key will be found most useful both to beginners and teachers alike. The examples are all carefully worked out, many of the more difficult problems being treated at greater length with the view of helping those who are studying without the aid of a teacher. By an intelligent use of this book, a student should acquire a good knowledge of the method of working out problems as well as the important factor of attacking them in the right way.
W.

LETTERS TO THE EDITOR.

[*The Editor does not hold himself responsible for opinions expressed by his correspondents. Neither can he undertake to return, or to correspond with the writers of, rejected manuscripts intended for this or any other part of* NATURE. *No notice is taken of anonymous communications.*]

Ice in the South Atlantic.

THE following account of ice met with in the South Atlantic at the commencement of last April, which has been supplied to the Meteorological Office by Captain Froud, of the Shipmasters' Society, may be of interest to your readers.

ROBERT H. SCOTT,
June 17. Secretary, Meteorological Office.

Ship *Cromdale*, London.

SIR,—I now send you a short account of my unusual encounter with ice in the above ship on our homeward passage from Sydney.

We left Sydney on March 1, and having run our easting down on the parallel of 49° to 50° S., rounded the Horn on March 30 without having seen ice, the average temperature of the water being 43° during the whole run across.

At midnight on April 1, lat. 56° S., long. 58° 32′ W., the temperature fell to 37°·5, this being the lowest for the voyage, but no ice was seen, although there was a suspicious glare to the southward.

At 4 a.m., April 6, lat. 46° S., long. 36° W., a large berg was reported right ahead, just giving us time to clear it. At 4.30, with the first sign of daybreak, several could be distinctly seen to the windward, the wind being north-west, and the ship steering north east about nine knots. At daylight (5.20) the whole horizon to the windward was a complete mass of bergs of enormous size, with an unbroken wall at the back; there were also many to the leeward. I now called all hands, and after reducing speed to seven knots, sent the hands to their stations and stood on. At 7 a.m. there was a wall extending from a point on the lee bow to about four points on the quarter, and at 7.30 both walls joined ahead. I sent the chief mate aloft with a pair of glasses to find a passage out, but he reported from the topgallant yard that the ice was unbroken ahead. Finding myself embayed, and closely beset with innumerable bergs of all shapes and sizes, I decided to tack and try to get out the way I had come into the bay. The cliffs were now truly grand, rising up 300 feet on either side of us, and as square and true at the edge as if just out of a joiners' shop, with the sea breaking right over the southern cliff and whirling away in a cloud of spray. Tacked ship at 7.30, finding the utmost difficulty in keeping clear of the huge pieces strewn so thickly in the water, and having in several cases to scrape her along one to get clear of the next. We stood on in this way till 11 a.m., when to my horror the wind started to veer with every squall, till I drew quite close to the southern barrier, having the extreme point a little on my lee bow. I felt sure we must go ashore without a chance of saving ourselves. Just about 11.30 the wind shifted to the south-west with a strong squall, so we squared away to the north-west, and came past the same bergs we had seen at daybreak, the largest being about 1000 feet high, anvil-shaped, and at 2 p.m. got on the north-west side of the northern arm of the horse-shoe shaped mass. It then reached from four points on my lee bow to as far as could be seen astern, in one unbroken line. A fact worthy of note was that at least fifty of the bergs in the bay were perfectly black, which was to be accounted for by the temperature of the water being 51°, which had turned many over. I also think that had there been even a small outlet at the eastern side of this mass the water between the barriers would not have been so thickly strewn with bergs, as the prevailing westerly gales would have driven them through and separated them.

I have frequently seen ice down south, but never anything like even the smaller bergs in this group. I also had precisely the same experience with regard to the temperature of the water in our homeward passage in the ship *Derwent* three years ago, as we dipped up a bucket of water within half a mile of a huge berg and found no change in the temperature.

I trust you will warn, as far as possible, those about to sail for the Cape, as these bergs must soon reach that part.

I remain, yours truly,
(Signed) EDGAR H. ANDREW, Master.
June 12.

Land and Freshwater Shells peculiar to the British Isles.

MR. COCKERELL, in his article in NATURE of May 26 (p. 76), draws attention to a list of land and freshwater shells peculiar to the British Islands in Dr. Wallace's new edition of "Island Life." This work is of such very great importance to every one engaged in the study of the geographical distribution of animals, that it is regrettable the author should have repeated an error made in the first edition. *Geomalacus maculosus*, as is mentioned in Mr. Cockerell's article, is not peculiar to the British Islands. A specimen was discovered in Northern Spain as far back as 1868 by Mr. von Heyden, and recorded in the *Nachrichtsblatt d. deutschen Malakozool. Gesellschaft* by Heynemann in 1869. The allied species, supposed to have been found in France, has been proved to be an Arion; but several species of the interesting genus Geomalacus have been recently described by Simroth from Portugal.

Mr. Cockerell also states that several varieties in the list of peculiar British forms may have to be eventually struck out; and this is certainly the case, as the variety *albolateralis* of *Arion ater*, mentioned as "very distinct," was found near Bremen, in Germany, and is described in Simroth's "Naturgeschichte der deutschen Nacktschnecken" (*Zeitschr. f. wiss. Zoologie*, vol. 42, 1885).
R. F. SCHARFF.
22 Leeson Park, Dublin, June 13.

THE IMPERIAL INSTITUTE.

THE Imperial Institute is no longer a castle in the air, an abstraction the meaning of which is to be guessed at through a veil of mist, but a solid and hand-

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